IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended) A sensor ~~Sensor~~ device for detecting an external impact load on a vehicle (12), in particular in the case of a pedestrian impact, with at least one sensor line (14) responsive to a mechanical deformation, a carrier body (16) receiving the sensor line (14), and a measuring unit (20) cooperating with the sensor line (14) for providing an impact signal, wherein the carrier body (16) includes a deformation structure (18) in engagement with the sensor line (14) for segment-wise variable pressure force transmission.

2. (currently amended) The sensor ~~Sensor~~ device according to Claim 1, ~~thereby characterized, that~~ wherein the deformation structure (18) influences the signal transmission in the sensor line (14) in the case of an impact.

3. (currently amended) The sensor ~~Sensor~~ device according to Claim 1 ~~or 2~~, ~~thereby characterized, that~~ wherein the pressure force transmission is adaptable to the impact resistance of the surrounding vehicle part (32) via adaptation means (26; 44, 46) provided along the length of the sensor line (14).

4. (currently amended) The sensor ~~Sensor~~ device according to claim 1 ~~one of Claims 1 through 3, thereby characterized, that~~ wherein the pressure force transmission is so adapted, that the impact signal in the case of a predetermined impact load remains constant independent of the point of impact.

5. (currently amended) The sensor ~~Sensor~~ device according to claim 1 ~~one of Claims 1 through 4, thereby characterized, that~~ wherein the deformation structure (18) includes a number of force transmission elements (26) distributed along the sensor line (14) in uneven separation from each other.

6. (currently amended) The sensor ~~Sensor~~ device according to claim 1 ~~one of Claims 1 through 5, thereby characterized, that~~ wherein the carrier body (16) exhibits an irregular changeable bending resistance or stiffness along the sensor line (14) as a result of changes in the cross section or in the material density or as a result of breakthroughs or recesses or the like as adaptation means.

7. (currently amended) The sensor ~~Sensor~~ device according to claim 1 ~~one of Claims 1 through 6, thereby characterized, that~~ wherein the carrier body (16) includes an elastically

deformable spacer (14, 16) with elasticity varying along the sensor line (14).

8. (currently amended) The sensor ~~Sensor~~ device according to claim 1 ~~one of Claims 1 through 7, thereby characterized, that~~ wherein the carrier body (16) includes at least one longitudinal bar (44, 46), bendable or buckling under transverse load, running along the sensor line (14).

9. (currently amended) The sensor ~~Sensor~~ device according to Claim 8, ~~thereby characterized, that~~ wherein the longitudinal bar (44, 46) includes a variable wall thickening or wall weakening for adaptation of its transverse stiffness.

10. (currently amended) The sensor ~~Sensor~~ device according to claim 1 ~~one of Claims 1 through 9, thereby characterized, that~~ wherein the deformation structure (18) acts upon the sensor line (14) upon exposure to local bending forces.

11. (currently amended) The sensor ~~Sensor~~ device according to claim 1 ~~one of Claims 1 through 10, thereby characterized, that~~ wherein multiple sensor lines (14) are provided next to each other.

12. (currently amended) The sensor ~~Sensor~~ device according to claim 1 ~~one of Claims 1 through 11, thereby characterized,~~

~~that~~ wherein multiple sensor lines (L1-L5) include active segments (54) in engagement with the deformation structure (18) and blind segments (56) not in engagement.

13. (currently amended) The sensor ~~Sensor~~ device according to Claim 12, ~~thereby characterized, that~~ wherein the length of the segments (54, 56) varies for different sensor lines (14).

14. (currently amended) The sensor ~~Sensor~~ device according to Claim 12 ~~or 13~~, ~~thereby characterized, that~~ wherein the length of the active and blind segments (54, 56) for each row (L1-L5) of sensor lines (14) decreases at a fixed ratio.

15. (currently amended) The sensor ~~Sensor~~ device according to claim 1 ~~one of Claims 1 through 14~~, ~~thereby characterized, that~~ wherein the deformation structure (18) includes two comb-like deformation bodies (22, 24), and that the sensor line (14) runs between the deformation bodies (22, 24) which engage in each other upon impact.

16. (currently amended) The sensor ~~Sensor~~ device according to claim 1 ~~one of Claims 1 through 15~~, ~~thereby characterized, that~~ wherein the sensor line includes at least one optical fiber (14).

17. (currently amended) The sensor ~~Sensor~~ device according to claim 1 ~~one of Claims 1 through 16~~, ~~thereby characterized, that~~ wherein the sensor line (14) includes two conductor or guide segments (14', 14") running side by side and continuously connected, preferably via a loop.

18. (currently amended) A process ~~Process~~ for detecting an external impact load on a vehicle (12), in particular in the case of a pedestrian impact,

wherein an impact signal is produced by a sensor line (14) responsive to a mechanical deformation,

wherein the force transmission on the sensor line (14) is locally varied by a deformation structure (18), so that the impact signal in the case of a predetermined impact load remains the same independent of the impact point.

19. (currently amended) The process ~~Process~~ according to Claim 18, ~~thereby characterized, that~~ wherein light is introduced into an optical fiber (14) of a sensor device (10) and that the light transmissivity in the optical fibers (14) is influenced by changes in the radius of bends bend, and that a signal change of the light signal derived from the optical fiber is evaluated as impact signal.